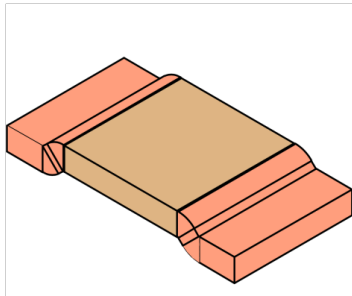




SBH - 4527 (4521) Series

Low Ohmic EB Welded SMD Precision Resistor



Features

- 5 Watts Permanent Power
- High Conductivity Copper Connectors
- Excellent Long Term Stability
- High Application Temperature Range -65°C to +275°C
- Max. Solder Temperature up to 350°C / 30Sec
- Flame Resistant
- Solid Metal Construction
- RoHS and REACH Compliant
- AEC-Q200 Qualified (See table 3)

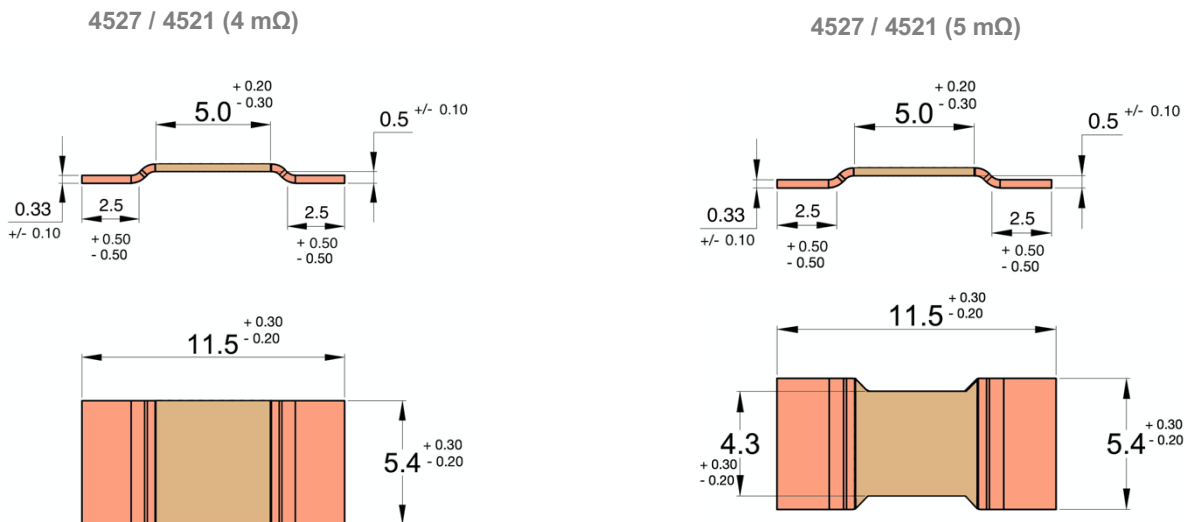
Applications

- Current Sensing/ Feedback
- Automotive Applications
- Power Modules
- Frequency Convertors
- Inverters
- Low Inductance Applications



Technical Data		
Resistance Values	4, 5	(mΩ)
Tolerance	1,3, 5	(%)
TCR - Temperature Coefficient (Resistive Alloy)	< - 25 (Aluchrom Alloy)	(ppm/K)
Applicable Temperature Range	-65 to +275	°C
Load Capacity	See Table 2	-
Inductance	< 3	nH
Stability Deviation	< 0.5 after 2000 Hours, $T_t^* = 110^\circ\text{C}$	%
	< 1.0 after 2000 Hours, $T_t^* = 140^\circ\text{C}$	%

Table 1



Type	Resistance Value (mΩ)	Material	t \pm 0.1 (mm)	TCR (ppm)	P _{70°C} (W)	P _{100°C} (W)
SBH-A1-R004	4.0	Aluchrom Alloy	0.33	< 100	5	3
SBH-A1-R005	5.0	Aluchrom Alloy	0.33	< 100	4	2.5

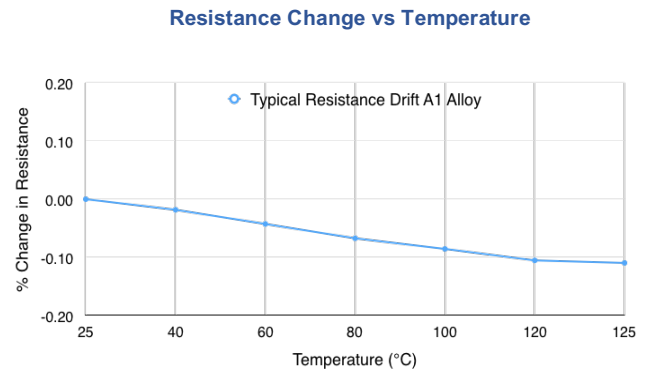
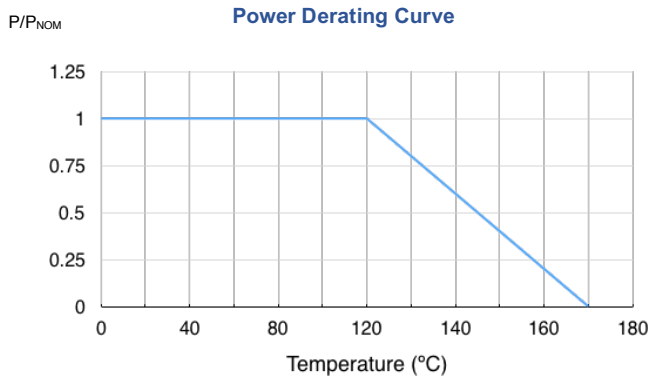
Table 2

All dimensions are in mm



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Low Ohmic EB Welded SMD Precision Resistor



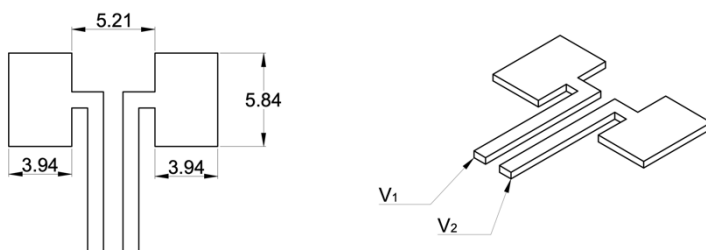
Performance:

Type of Test	Reference STD	Test Specifications	Acceptance Criteria *
High Temperature Exposure	MIL-STD-202 Method 108	1000Hrs. @ T=170°C.Unpowered.	ΔR +/-1%
Temperature Cycling	JESD22 Method JA-104	-55°C to 150°C, 1000Cycles, 30Mins at each extreme	ΔR +/-0.5%
Biased Humidity	MIL-STD-202 Method 103	85°C & 85RH with 10% operating power, 1000Hrs	ΔR +/-0.5%
Operational Life	MIL-STD-202 Method 108	125°C at rated power,1000Hrs	ΔR +/-1%
External Visual	MIL-STD-883 Method 2009	Visual inspection	Visual
Physical Dimension	JESD22 Method JB-100	Dimensional inspection as per SBCL Specifications	Shall confirm within tolerance limits
Resistance to Solvents	MIL-STD-202 Method 215	Clean with Aqueous chemical	Marking shall be legible
Mechanical Shock	MIL-STD-202 Method 213	100g for 6ms, Half sine	ΔR +/-0.2%
Vibration	MIL-STD-202 Method 204	5g for 20Mins, 12 cycles each of 3 orientations.10-2000Hz	ΔR +/-0.2%
Resistance to Soldering Heat	MIL-STD-202 Method 210	Solder Temp. 260°C, Time 10Secs	ΔR +/-0.5%
Solderability	J-STD-002	As per J-STD-002	>95% Coverage in 10x Magnification
Electrical Characterization	User Spec.	Resistance as defined	Shall confirm within tolerance limits
Short Time Over Load	--	5x Rated Power for 5Secs	ΔR +/-1%
Low Temperature Storage	--	-65°C for 24Hrs	ΔR +/-0.2%

*Based on actual measured values of closest standard product

Table 3

Solder Pad Layout:



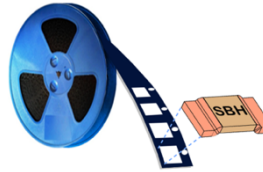


SBH – 4527 (4521) Series

Low Ohmic EB Welded SMD Precision Resistor

Reel Information	
Reference Standard	DIN EN 60286-3
Width of Reel	24 mm
Number of parts per Reel	2000 pcs

Table 4



Example of Ordering Code

SBH-A1-R005-1-TR

